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[67190/993896]



# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:

: Examiner: Kevin S. Parton

Rainer Barth

For:

INDUSTRIAL CONTROLLER FOR

MACHINE TOOLS, ROBOTS AND/OR

PRODUCTION MACHINES

Filed:

September 19, 2000

Serial No.: 09/664,948

: Art Unit: 21 RECEIVED

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**Technology Center 2100** 

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#### APPEAL BRIEF TRANSMITTAL

SIR:

Transmitted herewith for filing in the above-identified patent application please find an Appeal Brief pursuant to 37 C.F.R. § 1.192(a), in triplicate.

Please charge the Appeal Brief fee of \$330.00, and any other fees that may be required in connection with this communication to the deposit account of **Kenyon & Kenyon**, deposit account number 11-0600. A duplicate of this paper is attached for this purpose.

Dated: 8 1 17 mg

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Aity's Signature

APPEAL BRIEF PURSUANT TOTAL

SIR:

On May 10, 2004, the United States Patent Office receive from Appellant a Notice of Appeal from the final rejection of claims 1-16 contained in the Final Office Action issued on January 20, 2003 in the above-identified patent application.

In accordance with 37 C.F.R. § 1.192(a), this brief is submitted in triplicate in support of the appeal of the final rejection of claims 1-16. For at least the reasons set forth below, the final rejection of claims 1-16 should be reversed.

#### 1. **REAL PARTY IN INTEREST**

The real party in interest in the present appeal is Siemens Aktiengesellschaft, Wittelsbacherplatz 2, D-80333 München, Federal Republic of Germany. Siemens is the assignee of the entire right, title and interest in the present application.

# 2. RELATED APPEALS AND INTERFERENCES

There are no interferences or other appeals related to the present application.

#### 3. STATUS OF CLAIMS

Claims 1 and 4-16 stand rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,591,296 to Ghanime (the "Ghanime patent"), in view of U.S. Patent No. 6,147,601 to Sandelman et al. (the "Sandelman patent"). Claims 2 and 3 stand rejected under 35 U.S.C. § 103 as being unpatentable over the Ghanime patent and the Sandelman patent, in view of U.S. Patent No. 6,065,136 to Kuwabara (the "Kuwabara patent").

Appellant appeals from the final rejection of claims 1-16. A copy of claims 1-16 is attached hereto in the Appendix.

### 4. <u>STATUS OF AMENDMENTS</u>

Appellant's filed a Response After Final Rejection on March 18, 2004. The Response did not contain any amendments.

#### 5. SUMMARY OF THE INVENTION

The present invention allows rapid, comprehensive and exact information by means of alarms and operating messages to the various sites in a company operating the machine, or to firms providing services (including machine manufacturers). Page 2, line 37 - page 3, line 3. Conventionally, information regarding faults, equipment shutdowns, etc., are passed on, usually orally, from the worker to the supervisor and so on until, finally, a hotline or a service provider is reached. Page 3, lines 4-7. In the conventional case., information may be lost or queries regarding a machine, a software level, the location of the machine, data relating to faults, such as trace files, etc. may be necessary. Page 3, lines 8-11. The present invention allows the aforementioned data to be sent quickly and in the simplest of manners by e-mail to any desired e-mail receiver using the Internet. Page 3, lines 11-14. This means that it is also possible to inform a hotline at any site in the world about this fault or message, irrespective of time. Page 3, lines 14-16. Furthermore, it also allows a plurality of receivers to be defined, these receivers thus immediately having the same level of information as each other. Page 3, lines 16-18

The FIGURE illustrates an example embodiment of the present invention.. In

particular, the FIGURE shows a numerical controller NC. The numerical controller includes, e.g., servers S1 and S2, which are allocated to the control panel BT in the illustrative embodiment. Page 4, lines 1-3. In this arrangement, the server S1 knows all the NC variables and PLC variables and parameters. Page 4, lines 3-5. The server S2 can be regarded as an alarm server. Page 4, lines 6-7.

A converter U (implemented in hardware or software), can access the alarm server S2 via a bus system B3 and thus always reacts when the alarm server S2 contains a state in the numerical controller NC, in the interface controller PLC or in the machine tool WZM as an alarm or occurrence of a message. Page 4, lines 10-15. The converter U uses a table function, which is stored in it, to define which alarm or which message is allocated, which may include:

- 1. list of persons or sites to be informed,
- 2. relevant short information as e-mail, possibly limited to SMS format, and
- 3. further files, to be attached to an e-mail. Page 4. lines 15-22.

When this allocation has taken place, a bus system B4 is used to activate a transmission device SE, for example a modem, as an e-mail client, and the receivers, be they pure SMS receivers, which can process only 160 characters, or be they normal e-mail receivers EM1 and EM2, for example PCs, receive the sent information via a switching facility VE used as an e-mail server. Page 4, lines 24-30. The relevant information stream is indicated in dashed lines in this case. Page 4, lines 30-31.

The allocation function of the converter U can, as indicated by a line L1, be configured by the user, using the keyboard T on the control panel BT. Page 4, lines 33-35.

If the number of alarms and/or messages usually present in the server S2 is insufficient and very specific further operating states of the numerical controller NC, the interface controller PLC and/or the machine tool WZM need to be polled, the converter U and a line L2 can be used, in this context, to initiate a bit poll, i.e., the system is informed of those predefined states of the numerical controller NC, the interface controller PLC and the machine tool WZM for which a relevant operating state is subsequently reported in the server S2, said operating state then being detected immediately by the converter U, as a result of which the appropriate message is sent to the selected group of interested parties. Page 4, line 37 - page 5, line 12.

The e-mail client (SE) is thus always informed by the alarm server S2 when there are new alarms. Page 5, lines 14-16. The e-mail client (SE) in turn uses the

converter U to search through the previously configured list of alarms (including messages) and associated interested parties, as well as the textual description, subsequently establishes a connection to the e-mail server (VE) and then sends the appropriate e-mails or SMS communications. Page 5, lines 15-21. In this case, the alarms reported by the alarm server S2 contain not only the predefined alarms, but can also contain specific alarms and other messages. Page 5, lines 21-23. Configuration is carried out for all alarms which are to be sent by e-mail and/or SMS, particularly a plurality of individual alarms and number sets, and also receivers to be informed of this notification as well as files which are to be attached by e-mail. Page 5, lines 23-28.

The e-mail's subject line can then contain the respective alarm number in addition to the actual text of the alarm and/or message in the respective language which is set. Page 5, lines 30-32. The time at which the alarm was registered can also be forwarded. If the same alarms are passed to different receivers, it is possible for the service center to be informed about all alarms and/or messages by e-mail and for the service personnel to be contacted by SMS, on a mobile phone, only about special alarms and/or messages. Page 5, line 34 - page 6, line 1. The alarms and/or messages can, of course, remain stored in the transmission path, particularly in the switching facility VE, i.e. the e-mail server, for a presettable time. Page 6, lines 1-4.

# 6. ISSUES

Issue A: Whether claims 1 and 4-16, which stand rejected under 35 U.S.C. § 103, are patentable over the Ghanime patent in view of the Sandelman patent.

Issue B: Whether claims 2 and 3, which stand rejected under 35 U.S.C. § 103, are patentable over the Ghanime patent and the Sandelman patent, in view of the Kuwabara patent.

# 7. **GROUPING OF CLAIMS**

#### **Issue A:**

Group 1: Claims 1 and 4-16

#### Issue B:

Group 1: Claims 2 and 3

With respect to each issue, the claims of each Group stand or fall together with the other claims of that Group. However, each Group of claims does not stand or fall together with any other Group of claims.

#### 8. ARGUMENTS

#### A. <u>Issue A</u>

#### **Group 1**

Claims 1 and 4-16 stand rejected under 35 U.S.C. § 103 as being obvious over the Gharnime patent in view of the Sandelman patent. It is respectfully submitted that none of claims 1 and 4-16 is obvious over the Gharnime patent and the Sandelman patent, for at least the following reasons.

The Examiner admits that the Ghanime patent fails to disclose Applicant's "table" recited in claim 1. For this feature, the Examiner relies on the Sandelman patent. Respectfully, as recited in claim 1, the present invention is directed to an industrial controller for a machine tool, a robot and/or a production machine. The Sandelman patent, on the other hand, is directed to a system for monitoring HVAC systems. HVAC systems are generally controlled with the aid of highly complex control instrumentation and technology. It would not be obvious to apply technologies such as that described in the Sandelman patent, to a relatively simple control device of machinery such as that described in the Ghanime patent. Respectfully, the Sandelman patent relates to an art area that is not analogous to either the Ghanime patent or the present invention. As noted, HVAC systems require relatively complex technologies; it would not have been obvious to a person of ordinary skill in the art to apply technologies involved in such a system to the much simpler technology area of the Ghanime patent.

For at least these reasons, it is respectfully submitted that it would not have been obvious to combine the teachings of the Ghanime patent with the Sandelman patent, at least in the manner suggested by the Examiner. Accordingly, the Ghanime patent in view of the Sandelman patent does not render obvious claim 1. Claims 4-7 depend from claim 1; accordingly, the arguments presented above in connection with claim 1 apply equally to claims 4-8.

As regards to claims 9-16, claims 9, 11, 13 and 15, recite similar features as discussed above in connection with claim 1. Claims 10, 12, 14 and 16 depend

from claims 9, 11, 13 and 15, respectively. It is submitted that arguments analogous to those presented above in connection with claim 1 apply to claims 9-16. For at least this reason, it is submitted that the Ghanime patent in view of the Sandelman patent does not render any of claims 9-16 obvious.

In view of the foregoing, reversal of the Examiner's rejection of claims 1 and 4-16 is requested.

#### B. Issue B

#### Group 1

Claims 2 and 3 stand rejected under 35 U.S.C. § 103 as being obvious over the Ghanime patent in view of the Sandelman patent and the Kuwabara patent. It is respectfully submitted that neither claim 2 nor claim 3 is obvious over the Ghanime patent in view of the Sandelman patent and the Kuwabara patent, for at least the following reasons.

As an initial matter, claims 2 and 3 depend from claim 1. Accordingly, the arguments presented above in connection with claim 1 and the Ghanime patent and the Sandelman patent apply equally to claims 2 and 3. The Kuwabara patent does not cure the deficiencies of the Ghanime patent and the Sandelman patent.

Moreover, claim 2 recites that the e-mail has a file attached to it (claim 3 depends from claim 2). As regards this feature, the Examiner apparently relies on col. 5:15-18 and 20-23 of the Kuwabara patent. Respectfully, these sections of the Kuwabara patent do not appear describe a file attached to an email. These sections appear to describe that information stored in the diagnostic data memory, and trouble and image data from image memory 14g are be stored in e-mail memory 14c. Respectfully, it appears that the information in e-mail memory 14c is provided in the body of an e-mail message. In particular, it appears that a special diagnostic program is used to read this information when the email message is retrieved. See, e.g., col.5:42-46.

In view of the foregoing, it is respectfully submitted that the Ghanime patent in view of the Sandelman patent and the Kuwabara patent does not render obvious either of claims 2 or 3. Reversal of the Examiner's rejection of claims 2 and 3 is therefore requested.

# 9. <u>CONCLUSION</u>

For at least the reasons indicated above, Appellant respectfully submits that the art of record does not teach or suggest Appellant's invention as recited in the claims of the above-identified application. Accordingly, it is respectfully submitted that the inventions recited in the claims of the present application are new, non-obvious and useful. Reversal of the Examiner's rejections of claims 1-16 is therefore respectfully requested.

Respectfully submitted

By:

Dated: 8 July ws

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#### **APPENDIX**

1. An industrial controller for a machine tool, a robot and/or a production machine, comprising:

a converter which associates predefined operating states on an individual basis to respective messages and/or alarms so that, if one of the predefined operating states is present, an SMS message and/or an e-mail about the one of the predefined operating states is sent to a predefined distribution group; and

a table which associates each of the predefined operating states with: i) a respective distribution group to whom the SMS message and/or email message is to be sent, and ii) information identifying particular information to be included in the SMS message and/or email message,

wherein after one of the predefined operating states is detected, the respective message and/or alarm associated with the one of the predefined operating states is sent via the SMS message and/or e-mail to the respective distribution group associated with the detected predefined operating state, the respective message and/or alarm including the particular information identified by the information associated with the detected predefined operating state.

- 2. The controller according to claim 1, wherein the e-mail has a file attached to it.
- 3. The controller according to claim 2, wherein the file is a trace file, the trace file including an operating sequence preceding the messages and/or alarms.
- 4. The controller according to claim 1, further comprising:

  an operating keyboard to effect the association by editing.
- 5. The controller according to claim 1, wherein the converter is configured to initiate a bit poll, the bit poll for polling at least one system component for operation state information.
- 6. The controller according to claim 1, wherein the SMS message and/or the e-mail about the one of the predefined operating state is sent to the predefined distribution group when

the one of the predefined operating states arises.

- 7. The controller according to claim 1, wherein each respective distribution group includes at least one person and/or site.
- 8. The controller according to claim 1, wherein the table associates at least two of the predefined operating states with a different respective distribution group.
- 9. An industrial controller for a machine tool, a robot and/or a production machine, comprising:

a converter which associates predefined operating states on an individual basis to respective messages and/or alarms;

a table which associates each of the predefined operating states with: i) a respective distribution group to whom an SMS message and/or email message is to be sent, and ii) information identifying particular information to be included in the SMS message and/or email message; and

a transmitter configured to send the message and/or alarm associated with one of the predefined operating states after the one of the predefined operating states is detected, the message and/or alarm being sent via the SMS message and/or email message to the respective distribution group associated with the detected predefined operating state, the respective message and/or alarm including the particular information identified by the information associated with the detected predefined operating state.

- 10. The controller according to claim 9, wherein the table associates at least two of the predefined operating states with a different respective distribution group.
- 11. An industrial controller for a machine tool, a robot and/or a production machine, comprising:

a converter which associates predefined operating states on an individual basis to respective messages and/or alarms;

a table which associates each of the predefined operating states with: i) a respective distribution group to whom an SMS message is to be sent, and ii)

information identifying particular information to be included in the SMS message; and

a transmitter configured to send the message and/or alarm associated with one of the predefined operating states after the one of the predefined operating states is detected, the message and/or alarm being sent via the SMS message to the respective distribution group associated with the detected predefined operating state, the respective message and/or alarm including the particular information identified by the information associated with the detected predefined operating state.

- 12. The controller according to claim 11, wherein the table associates at least two of the predefined operating states with a different respective distribution group.
- 13. An industrial controller for a machine tool, a robot and/or a production machine, comprising:

a converter which associates predefined operating states on an individual basis to respective messages and/or alarms;

a table which associates each of the predefined operating states with a respective distribution group to whom an SMS message and/or email message is to be sent; and

a transmitter configured to send the message and/or alarm associated with one of the predefined operating states after the one of the predefined operating states is detected, the message and/or alarm being sent via the SMS message and/or email message to respective distribution group associated with the detected predefined operating state.

- 14. The controller according to claim 13, wherein the table associates at least two of the predefined operating states with a different respective distribution group.
- 15. An industrial controller for a machine tool, a robot and/or a production machine, comprising:

a converter which associates predefined operating states on an individual basis to respective messages and/or alarms;

a table which associates each of the predefined operating states with a respective distribution group to whom an SMS message is to be sent; and a transmitter configured to send the message and/or alarm associated with one of the predefined operating states after the one of the predefined operating states is detected, the message and/or alarm being sent via the SMS message to the respective distribution group associated with the detected predefined operating state.

16. The controller according to claim 15, wherein the table associates at least two of the predefined operating states with a different respective distribution group.